



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/612,850	07/03/2003	John W. Robinson	BFGRP0313USB	6883
53428 7590 12/20/2006 DON W. BULSON (GOODRICH) RENNER, OTTO, BOISSELLE & SKLAR, LLP 1621 EUCLID AVENUE 19TH FLOOR CLEVELAND, OH 44115			EXAMINER SELLERS, ROBERT E	
			ART UNIT	PAPER NUMBER
			1712	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		12/20/2006	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/612,850

Applicant(s)

ROBINSON ET AL.

Examiner

Robert Sellers

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 7-9, 11 and 13-30 is/are pending in the application.
- 4a) Of the above claim(s) 7 and 13-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 8, 9, 11 and 30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Art Unit: 1712

1. This application contains claims 13-15 and 17-29 drawn to inventions non-elected with traverse in the response filed August 8, 2005. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144 and MPEP § 821.01). Claims 7 and 16 are withdrawn as being directed to non-elected species.

2. The 35 U.S.C. 112, first paragraph, new matter rejection set forth in the non-Final rejection mailed September 1, 2006 on page 2, paragraph 1 is rescinded since the specification on page 9, lines 16-17 describes dicarboxyl-terminated liquid polymers having viscosities at 25°C which when considered with the blending at ambient temperature disclosed on page 7, line 10, reasonably conveys to a person skilled in the art that the carboxyl-terminated butadiene-acrylonitrile copolymer is liquid at ambient temperature.

The text of those sections 112 and 103(a) of Title 35, U.S. Code not included in this action can be found in the non-Final rejection mailed January 18, 2006.

Claims 1-3, 8, 9, 11 and 30 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claims contain subject matter not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Art Unit: 1712

The rejection with respect to the inconsistency of including the monoepoxides such as octadecyleneoxide, epichlorohydrin, styrene oxide, vinylcyclohexene oxide and glycidyl methacrylate listed on page 6, line 30 to page 7, line 1 within the claimed epoxy resin is maintained for the reasons of record set forth in the previous Office actions. The arguments filed December 1, 2006 have been considered but are unpersuasive.

3. The specification on page 5, line 29 to page 6, line 1 states that “[i]n general, an epoxy resin is a compound containing **more than one** α (alpha) or 1,2-epoxy group capable of being converted to a useful thermoset or cured state by a curing agent . . . [emphasis added].” An epoxy compound cannot form a “curable composition” as claimed unless more than one epoxy group is present to react with more than one reactive group of a curing agent to form a cured network. The claimed epoxy resin cannot be “converted to a useful thermoset or cured state” unless more than one epoxy group is reacted with at least one reactive group of a curing agent to yield an at least two-dimensional cured product. The presence of monoepoxides by themselves cannot form a cured product unless present in an admixture with an epoxy resin containing more than one epoxy group.

Claims 1-3, 8, 9, 11 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Minamisawa et al. Patent No. 4,500,660 and Japanese Patent No. 64- or 1-60679 (Japanese '679).

The rejection is maintained for the reasons of record set forth in the previous Office actions. The arguments filed December 1, 2006 have been considered but are unpersuasive.

4. Although the carboxy-containing acrylonitrile-butadiene copolymers of Minamisawa et al. and Japanese '679 are exemplified by the solid Nipol 1072, the teachings of a reference are not confined solely to exemplified species.

Minamisawa et al. (col. 1, line 54 and col. 4, lines 53-61) discloses a nitrile rubber such as a carboxyl-modified copolymer of butadiene and acrylonitrile wherein that having a Mooney viscosity of 40 and 110 at 100°C is "suitable," but not exclusive.

Japanese '679 reports carboxy-terminated acrylonitrile copolymers in general without specifying any phase.

5. It would have been obvious to employ the carboxy-terminated copolymers of butadiene and acrylonitrile of Minamisawa et al. and Japanese '679 in liquid form or within the Brookfield viscosity limits of claims 8 and 30 in order to facilitate blending with the other components of the composition.

Art Unit: 1712

6. Even if, arguendo, the references are narrowly interpreted as disclosing only Nipol 1072, Minamisawa et al. (col. 6, lines 60-63) and Japanese '679 (CAPLUS abstract, AB, lines 8-9) describe the dissolution of the composition in a solvent, thereby yielding a liquid composition including the carboxy-terminated butadiene-acrylonitrile copolymer in liquid dissolved form at ambient temperature, thereby falling within the claimed reactive liquid polymer. It would have been obvious to prepare the liquid dissolved compositions of Minamisawa et al. and Japanese '679 at a viscosity within the broadly claimed Brookfield viscosity parameters of claims 8 and 30 in order to optimize the application of the composition to a substrate.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

(571) 272-1093 (Fax No. (571) 273-8300)

Monday to Friday, 9:30 to 6:00

rs 12/18/2006

ROBERT E.L. SELLERS
PRIMARY EXAMINER